



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/079,260

02/21/2002

Igor Anatolievich Abrosimov

2287/50971

6105

23911

7590

08/23/2005

CROWELL & MORING LLP
INTELLECTUAL PROPERTY GROUP
P.O. BOX 14300
WASHINGTON, DC 20044-4300

EXAMINER

WARE, CICELY Q

ART UNIT

PAPER NUMBER

2634

DATE MAILED: 08/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/079,260

Applicant(s)

ABROSIMOV ET AL.

Examiner

Cicely Ware

Art Unit

2634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 February 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☒ Claim(s) 21 and 22 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

2. Claim 2 is objected to because of the following informalities:

a. Claim 2, lines 2-3, examiner is unable to figure out what equation applicant is claiming. Examiner assumes the equation from Pg. 5 or the disclosure. Examiner suggests applicant make this equation sufficient for examination for clarification purposes. Therefore claim 2 has not been further treated on the merits. Appropriate correction is required.

3. Claims 4-14 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claims 1-5. See MPEP § 608.01(n). Accordingly, the claim 4-14 has not been further treated on the merits.

Claim Rejections - 35 USC § 112

4. Claims 2-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 2 recites the limitation "approximately defined". "Approximately" is vague and indefinite because it does not reference a definite limitation for the claim.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1, 3, 15-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Matthews (US Patent 6,311,239).

(1) With regard to claim 1, Matthews discloses in (Fig. 1) a coding means for encoding (22) data represented by input symbols into codes for serially transmitting (36) the codes along a communication channel, the codes being represented in the channel by signals having a limited minimum and maximum pulse width (col. 1, lines 12-30, col. 2, lines 8-13, 21-26) and sampling by a receiver at each receiver's clock period wherein the input symbols are encoded to have the minimum

signal width longer than one period of the receiver's sampling clock (col. 1, lines 48-55, col. 2, lines 48-64).

(2) With regard to claim 3, claim 3 inherits all the limitations of claim 2. Matthews further discloses wherein the input symbols are coded to have a minimum signal pulse width, which is at least twice longer than one period of the receiver's sampling clock (col. 1, lines 12-29, 48-54, col. 2, lines 8-14, 21-26).

(3) With regard to claim 15, see rejection of claim 1.

(4) With regard to claim 16, see rejection of claim 1.

(5) With regard to claim 17, claim 17 inherits all the limitations of claim 16. Matthews further discloses (Fig. 1) decoding (42) output codes to obtain respective output symbols (col. 2, lines 27-46).

(6) With regard to claim 18, see rejection of claim 1.

(7) With regard to claim 19, claim 19 inherits all the limitations of claim 18. Matthews further discloses wherein the minimal pulse width is equal to 2 bit intervals (col. 2, lines 8-13, 21-26).

(8) With regard to claim 20, claim 20 inherits all the limitations of claim 18 or 19. See rejection of claim 17.

Double Patenting

7. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA

Art Unit: 2634

1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1, 3, 5, 9, 12, 13, 15, 16, 17, 18, 20 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-9, 19 of U.S. Patent No. 6,806,817. Although the conflicting claims are not identical, they are not patentably distinct from each other because:

(1) Claim 1 of the patent fully encompasses all the limitations of claims 1, 15, 16, 18 of instant application.

(2) Claim 3 of the patent fully encompasses all the limitations of claim 3 of the instant application.

(3) Claim 1 of the patent fully encompasses all the limitations of claim 5 of the instant application.

(4) Claims 5 and 6 of the patent fully encompass all the limitations of claim 9 of the instant application.

(5) Claim 9 of the patent fully encompasses all the limitations of claim 12, 13, 18 of the instant application.

(6) Claim 19 of the patent fully encompasses all the limitations of claims 17 and 20 of the instant application.

Allowable Subject Matter

8. Claims 21 and 22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The following is a statement of reasons for the indication of allowable subject matter: The instant application discloses coding means for sending data at a higher rate than the bandwidth of the communication channel. Prior art references show similar methods but fail to teach: **“wherein the receiver takes multiple samples during each clock period to track the dynamic variation in the temporal or amplitude thresholds of the data to improve the overall coding efficiency”**, as in claim 20; **“the samples taken by the receiver are spread in time around a regular sampling clock that enables the dynamic shift in the received data to be tracked by matching shifts in the sampling clock or inverse shifts in delay circuitry within the receiver”**, as in claim 21.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cicely Ware whose telephone number is 571-272-3047. The examiner can normally be reached on Monday – Friday, 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 571-272-3056. The fax phone numbers


Art Unit: 2634

for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Cicely Ware

cqw
August 22, 2005



STEPHEN CHIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600